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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,603	07/26/2000	Keith D. Romack	P00224-US-2 (15435.0001)	8667
7590 12/16/2003			EXAMINER	
Russell E Fowler II Ice Miller Donaldio & Ryan One American Square Box 82001 Indianapolis, IN 46282-0002			CHORBAJI, MONZER R	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

0015

Office Action Summary

Application No.

09/625,603

Applicant(s)

ROMACK ET AL.

Examiner

MONZER R CHORBAJI

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This final office action is in response to the amendment received on 09/24/2003

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuhiro et al (U.S.P.N. 5,030,253) in view of Devries (U.S.P.N. 4,238,461).

With respect to claims 1, 5 and 14, Tokuhiro discloses a method (col.1, line 11-12) and an apparatus (col.1, lines 12-14) including the following: a vaporization chamber (figure 2, 33) having a side wall with an intake port (figure 2, 36), an outlet port (figure 2, 28), both ports allowing a stream of ambient air (figure 1, 26, 25 and 23) to enter and leave through the ports (col.4, lines 22-34), a liquid nozzle (figure 2, 34), a pressurized air nozzle (figure 2, 36), a distribution system (figure 1, 11) with various vapor release ports (figure 4, 12a, 12b, and 47). With regard to having the ports substantially diametrically opposed, Tokuhiro's vaporization chamber in figure 3, has the ports in the floor and the ceiling of the chamber. Also, in figure 2, Tokuhiro teaches that the intake port is in the sidewall of the chamber (36). As a result, whether the ports are located in the sidewalls or the floor and the ceiling of the chamber, such a choice is an engineering concept, which depends on whether a person skilled in the art is interested in increasing the residence time of air and fragrance within the chamber to achieve additional mixing of such components. For example, if residence time is not of interest then the mixed air with fragrance would travel faster by having a chamber with diametrically opposed ports. Furthermore, Tokuhiro discloses a nozzle directed toward the chamber floor (figure 3, 46) and a nozzle directed toward the chamber ceiling (figure 2, 35). However, Tokuhiro fails to teach the following: the use of a spray nozzle receiving a stream of pressurized air and having a vaporization chamber with no obstructions positioned between the intake port and the outlet port. Devries discloses a

spray nozzle (15 and 16) positioned along the top of a vaporization chamber (11) such that the interior of the vessel contains no obstructions positioned between the intake port (10) and the outlet port (12 and col.2, lines 52-55). Since Devries chamber is void of any obstructions then such a design would inherently effect circulation of air within the vaporization chamber. It would have been obvious to one having ordinary skill in the art to modify the method and apparatus of Tokuhiro to design a vaporization chamber with no obstructions positioned between the intake port and the outlet port in order to allow unimpeded settling of liquid droplets produced by nozzle 14 in the gas contained within the vessel (Devries, col.2, lines 52-55)

With respect to claims 2 and 15, both Tokuhiro and Devries fail to disclose the use of a filter in the air intake port. However, the use of filter is known and is well within the scope of a person having ordinary skill in the art.

With respect to claim 3, Devries discloses that the nozzle (14) is positioned in the chamber ceiling (col.3, lines 17-19).

With respect to claims 4 and 16, Tokuhiro's apparatus includes a blower (figure 2, 39 and 23).

With respect to claims 6 and 9, Tokuhiro's nozzle sprays liquid deodorant toward chamber floor (figure 3, 46) and also toward chamber ceiling (figure 2, 35).

With respect to claims 7, 10, 13, and 18, Devries's nozzle is positioned above the outlet port (12). However, with regard to the intake port, Devries outlet (12) is facing the inlet port (10) such that the nozzle is located above both ports in the vaporization chamber.

With regard to claims 8, 11-12 and 17, Tokuhiro's nozzle sprays liquid deodorant in a direction perpendicular to the stream of ambient air (figure 3, 46, 45 and 28).

Response to Arguments

5. Applicant's arguments filed 09/24/2003 have been fully considered but they are not persuasive.

On page 9 of the response, applicant argues, "Tokuhiro does not disclose a vaporization chamber having diametrically opposed intake and outlet ports having no obstructions positioned there between". Tokuhiro's vaporization chamber in figure 3 has the ports in the floor and the ceiling of the chamber. Also, in figure 2, Tokuhiro teaches that the intake port is in the sidewall of the chamber (36). As a result, whether the ports are located in the sidewalls or the floor and the ceiling of the chamber, such a choice is an engineering concept, which depends on whether a person skilled in the art is interested in increasing the residence time of air and fragrance within the chamber to achieve additional mixing of such components. For example, if residence time is not of interest then the mixed air with fragrance would travel faster by having a chamber with diametrically opposed ports.

On page 10 of the response, applicant argues, "DeVries does not disclose a vaporization chamber having diametrically opposed intake and outlet ports having no obstructions positioned there between". The DeVries was combined with Tokuhiro for two reasons: the use of a spray nozzle receiving a stream of pressurized air and having a vaporization chamber with no obstructions positioned between the intake port and the outlet port. Regarding "diametrically opposed intake and outlet ports such a limitation

was disclosed in Tokuhiro. However, with respect to having no obstructions positioned between intake and outlet ports, the interior of chamber (11) contains no obstructions positioned between the intake port (10) and the outlet port (12).

On page 11 of the response, applicant argues, "the examiner has not adequately explained why the combination of references is proper". Both references are in the art of vapor delivery for neutralizing malodors such that one having ordinary skill in the art would be motivated to modify the method and apparatus of Tokuhiro to design a vaporization chamber with no obstructions positioned between the intake port and the outlet port in order to allow unimpeded settling of liquid droplets produced by nozzle 14 in the gas contained within the vessel (Devries, col.2, lines 52-55).

On page 11 of the response, applicant argues, "In fact, because gas circulation is critical in the Devries reaction chamber, a diametrically opposed gas entry and exit is not disclosed and no suggestion for such an arrangement is provided in the reference". Again, the DeVries reference was not combined with the Tokuhiro reference for the "diametrically opposed intake and outlet ports" limitation. Such a limitation was disclosed and explained earlier in the Tokuhiro reference.

On page 11 of the response, applicant argues, "There is no suggestion in Tokuhiro that a diametrically opposed air entry and exit port with no obstructions there between would be desirable". As explained above and in the office action, Tokuhiro's vaporization chamber in figure 3 has the ports in the floor and the ceiling of the chamber. Also, in figure 2, Tokuhiro teaches that the intake port is in the sidewall of the chamber (36). As a result, whether the ports are located in the sidewalls or the floor and

the ceiling of the chamber, such a choice is an engineering concept, which depends on whether a person skilled in the art is interested in increasing the residence time of air and fragrance within the chamber to achieve additional mixing of such components. For example, if residence time is not of interest then the mixed air with fragrance would travel faster by having a chamber with diametrically opposed ports. However, Tokuhiro fails to teach a chamber with no obstructions positioned between the inlet and the outlet ports. DeVries teaches such a limitation.

On page 12 of the response, applicant argues, "the examiner proposes to combine the delivery system of Tokuhiro with the exhaust system of DeVries. This would mean that the air entered into the chamber of Tokuhiro would be an exhaust gas as cited in DeVries". The applicant is in error as to why the two references are combined. Removing obstructions positioned between the inlet and the outlet from the chamber of Tokuhiro as taught by DeVries will not change its principle of operation since it will only decrease the residence time within the chamber. As explained above Tokuhiro's vaporization chamber in figure 3 has the ports in the floor and the ceiling of the chamber. Also, in figure 2, Tokuhiro teaches that the intake port is in the sidewall of the chamber (36). As a result, whether the ports are located in the sidewalls or the floor and the ceiling of the chamber, such a choice is an engineering concept, which depends on whether a person skilled in the art is interested in increasing or decreasing the residence time of air and fragrance within the chamber to achieve the desired mixing of such components.

Conclusion

Art Unit: 1744

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

7. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Application/Control Number: 09/625,603
Art Unit: 1744

Page 9

Monzer R. Chorbaji *MRE*
Patent Examiner
AU 1744
12/11/2003

Robert J. Warden, Sr.
ROBERT J. WARDEN, SR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700